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ABSTRACT

The Disabilities Awareness Curriculum was used to teach able-bodied third-grade children about various disabilities in an effort to increase the accuracy of those children's perceptions concerning disabled individuals. Subjects were 140 children from 3 schools (2 classes from each school) representing 3 school districts. Children were randomly assigned by class within each school to either the experimental or control condition. All children were pretested and posttested. Children in the experimental groups were taught the information contained in the Disabilities Awareness Curriculum in eight classroom sessions of 1 to 1 1/2 hours each. A 32.2 split plot factorial analysis using a regression approach was conducted to examine the effects of school attended, experimental versus control condition, pretest versus posttest scores, and any interaction effects. Results demonstrated significant increases in test scores of those children who had been exposed to the curriculum, while control group test scores remained unchanged. Although pretest scores indicated a significant difference among students by school, the effectiveness of the program was demonstrated to generalize across schools. Follow-up scores indicated a high degree of retention at 6 and 10 months. (Author)

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Effect of Disabilities Awareness Curriculum on Third Grade Children's Perceptions of Disabled Individuals

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Abstract

The Disabilities Awareness Curriculum was used to teach non-disabled third grade children about various disabilities in an effort to increase the accuracy of those children's perceptions concerning disabled individuals. One hundred forty children from three schools (two classes from each school), representing three school districts served as subjects. Children were randomly assigned by class within each school to either experimental or control condition. All children were pretested and posttested. Children in the experimental groups were taught the information contained in the Disabilities Awareness Curriculum in eight classroom sessions of 1 to 1½ hours each. A 32.2 split plot factorial analysis using a regression approach was conducted to examine the effects of school attended, experimental vs control condition, pretest vs posttest scores, and any interaction effects. Results demonstrated significant increases in test scores of those children who had been exposed to the curriculum, while control group test scores remained unchanged. Although pretest scores indicated a significant difference among students by school, the effectiveness of the program was demonstrated to generalize across schools. Follow-up scores indicated a high degree of retention at six and ten months.

Effect of Disabilities Awareness Curriculum on Third Grade Children's Perceptions of Disabled Individuals

Much of the emphasis within special education programs during the past 10 years has been centered on mainstreaming. Mainstreaming may be defined as the social and instructional integration of eligible exceptional children with normal peers (MacMillan, Jones & Meyers, 1976). In 1974, mainstreaming was identified by special education professionals as the major issue facing special education (Dailey, 1975). Urgency has increased in recent years, however, with the passage of such laws as Public Law 94-142 and California's Master Plan for Special Education, which mandate mainstreaming.

Although the implementation of such laws has proven difficult (Shotel, Iano, & McGettigan, 1972; MacMillan, et al., 1976; Ohrtman, 1972; Dailey, 1975), it appears that the integration of disabled children into regular classroom settings by way of the resource room, a temporary daily displacement for purposes of special intervention according to the exceptional child's needs, can be not only academically feasible, but economically advantageous as well (Hammill, 1972).

There remains, however, the problem of the social acceptance of the disabled children by their non-disabled peers.

Ohrtman (1972) asks the question, "What does the twelve-year-old child reading at the second grade level do when he returns from the resource room to his regular grade? How does he handle...the competition he cannot manage, his inability to cope with subject matter and peers?" MacMillan, et al. (1976) have suggested that non-disabled youngsters perceive the differences they observe in disabled children in a negative light, thus stigmatizing their disabled peers. In fact, negative perceptions of disabled persons have been observed to develop in children as early as age 4, with children ages 5 and 6 consistently qualifying conditions under which they perceive disabled children as having fun (Silberberg, 1967).

In a study by Martino & Johnson (1979), in which learning disabled and non-disabled children participated together in a swim program, the stigmatization of the disabled children was apparent at baseline. However, results of that study suggest that by encouraging cooperative interaction, non-disabled children may become less antagonistic and more friendly toward the disabled children.

When attitudinal surveys were taken by children in grades 3, 4, and 5 before and after integration of orthopedically handicapped youngsters, it was demonstrated that an attitude change did occur in a positive direction (Kapier, Adelson, Carey & Croke, 1972). However, the change in attitude was of insufficient

magnitude to be of practical value to the integrated classroom. Nonetheless, it has been demonstrated that children's perceptions of the disabled, which may have been formed from early childhood, can be changed in a positive direction, thus increasing the desirability of integration. The problem remains, however, how can that change be accelerated and increased so as to be of practical value?

The purpose of this study is to assess the effectiveness of an informational program on the accuracy of third grade children's perceptions of disabled individuals. The informational program used in this study is the Disabilities Awareness Curriculum, which was developed by this author in 1979.

Method

Participants

The participants were 140 third grade children attending public schools in San Joaquin County. Two third grade classes were chosen from each of three schools representing a cross-section of the student population in the county.

The schools which were chosen to participate included Monroe School, located in an economically disadvantaged section of the largest city in the county; Village Oaks School, located in a more affluent section of the largest city; and McKinley School in a rural city. One class from each school was randomly

selected as the experimental group, while a second class from each school was randomly selected as the control. Students not present on both days when the pretests and posttests were administered, and non-readers, as identified by the classroom teacher, were excluded. The experimental groups from Monroe, Village Oaks, and McKinley Schools contained 17, 28, and 24 children respectively, and the control groups contained 24, 24 and 23 children respectively.

Equipment

Test. A two-part written test was used to measure the accuracy of each child's perceptions of persons with various disabilities. The first part consisted of 10 true/false questions designed to test the accuracy of knowledge in the face of various myths (e.g., "A person who is blind sees only blackness."). Part Two of the test was a six-question definition section in which the children were asked to define the six main topics of the curriculum. Classroom teachers were asked to rate on a scale of 1 to 5 the degree to which they felt the test functioned as a valid measurement tool regarding information learned from the curriculum. On that scale, 1 represented no relationship between the test and the curriculum and 5 represented a perfect relationship. Both teachers gave the test a rating of 5. The same test was used as a pretest and a posttest.

Curriculum. The curriculum presented was the Disabilities Awareness Curriculum.[1] The main topics discussed in the Cur-

riculum included Disabilities as a General Topic, Mental Retardation, Physical Impairments, Hearing Impairments and Epilepsy.

Social Validation. Each experimental classroom teacher was asked to complete a social validation questionnaire in which tney were asked to rate various aspects of the Curriculum (e.g., "How well do you feel the role play exercises were received, etc."). The teachers were also asked to rate the overall success or failure of the class.

Procedure

Each school was dealt with individually; participants were tested and/or taught, depending on random assignment, in six class groups of 17-28 each. Experimental and control groups in each school were tested separately on the same day.

Upon first encounter with each group, a pretest was administered in the following manner. The tests were handed out in the classroom face down on the desks with instructions to turn them over only when told to do so. All children in each group completed the pretest simultaneously as the experimenter read each question aloud. Participants were encouraged to guess the spelling of words in the definition section.

After the pretest was administered, the Disabilities Awareness Curriculum was taught to the experimental group in eight sessions in the following order: Disabilities as a General Topic, Mental Regardation, Physical Impairments Part One,

Physical Impairments Part Two, Hearing Impairments Part One, Hearing Impairments Part Two, Visual Impairments, and Epilepsy. Teaching techniques for the various topics included role-play, competitive gaming, didactic instruction, audiovisual and story-time activities.

Each session was approximately 1½ hours long. There was a minimum of one day between each session. That is, sessions were conducted either on Mondays, Wednesdays, and Fridays; or on Tuesdays, and Thursdays, whichever was more convenient for the classroom teacher.

On the same day as the eighth session of the Curriculum, the posttest was administered in exactly the same way as the pretest. All testing and the presentation of the Curriculum was conducted by the experimenter with the classroom teacher present.

Design

A 32.2 split plot factorial design was used to examine the effectiveness of the Curriculum. Factors examined in the design were the effect of the three schools, the effect of experimental or control conditions and the effect of pre- or posttest.

Follow-up

Within one year after the teaching of the Disabilities Awareness Curriculum, each of the three schools were contacted

for participation in the follow-up phase of the present study. Village Oaks School began a mainstreaming program in the school year following the one in which the Disabilities Awareness Curriculum was presented, in which a transition class of trainable mentally retarded children was instituted on the Village Oaks campus. Interaction between disabled and non-disabled students took place in the lunchroom, at recess and during art and music classes. Therefore, that school was tested at six months after the teaching of the Curriculum. McKinley students were tested ten months after the teaching of the Curriculum. The students from Monroe School were not available for the follow-up testing because they were sent to a different school for the fourth grade. The principal at the new school was unwilling to cooperate with the Study.

Two groups of 10 children (one group from each condition) were selected from each of the participating schools. Children who had moved away were omitted and samples were randomly chosen from the remaining children. The children were excused from their regular classes for the testing. Testing was done in the school library. The test was administered in exactly the same way as described for the pretest. The same test was used throughout testing.

Results

Subjective results

Midway through the teaching of the Curriculum, the students comprising the experimental group in Village Oaks School made the unsolicited decision to devote their monthly class newsletter wholly to the subject of disabilities. Twenty-two of the 28 students in the class submitted a story for the newsletter. The classroom teacher provided nothing in the way of prompts and corrected only spelling and sentence structure. Of the 22 articles submitted and printed, there was not one negative statement made concerning disabilities. One statement made concerning blindness, although demonstrating a positive attitude, was inaccurate. However, Visual Impairments had not yet been taught at the time the article was written.

Objective results

Social validation questionnaire. When rating the overall success or failure of the Curriculum on a scale of 1 to 7, with 1 representing complete failure and 7 representing complete success, the teachers gave the Curriculum a mean rating of 6.33. Every other aspect of the curriculum, as rated by the three classroom teachers over the six topics covered on a scale of 1 to 5 (1 being poor and 5 being excellent), received a rating of $\geq$ 4.67. When asked how much they felt the children learned

from this Curriculum, on a scale of 1 to 5 (1 representing "nothing at all" and 5 representing "more than I had anticipated"), the teachers gave a mean rating of 4.67.

Scoring the tests. There was a total of 22 points possible on each test. Scoring was done as follows. True/false questions were given 1 point for each right answer, 0 points for each wrong answer, and for no answer. Definition questions were given 2 points for each right answer, 1 point for each response that alluded to a right answer, and 0 points for each wrong answer, for no answer, and for illegible answers.

Reliability. To control for subjectivity in scoring the tests, a blind observer scored 10 randomly selected tests. The observer was blind concerning whether the test scored was pre- or posttest, which school the test came from, and whether the student was from the control or experimental group. The blind observer's scores were compared to experimenter's scores and agreement was computed at 100%.

Analysis of test scores. To control for the unequal and disproportional sample sizes across cells, an analysis of variance for 32.2 split plot factorial design was conducted using option 9 (regression approach) of SPSS subprogram ANOVA (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975) (Table 1).

The analysis of variance yielded a significant difference in the overall effect of school, demonstrating an initial difference in the children that could be attributed to the school

attended. However, the schools by treatment interaction effect was not significant. The effects of treatment (experimental vs control) and test (pre vs post) were significant.

The mean overall control group score on the pretest was 6.1 (s=2.3). Mean control posttest score overall was 6.4 (s=2.4). The mean overall experimental pretest score was 6.6 (s=2.4). The mean experimental posttest score overall was 18.51 (s=3.4). The interaction of treatment by test was significant.

Analysis of follow-up test scores. An analysis of variance for 22.3 split plot factorial design was conducted, again using option 9 (regression approach) of SPSS subprogram ANOVA (Nie, et al., 1975).

The analysis yielded a significant difference in the effect of treatment, the effect of test and the interaction effect of treatment by test.

The mean follow-up test scores under control condition was was 7.75 (s=2.51), while the mean follow-up test scores under experimental condition was 16.35 (s=3.23). An analysis was further conducted to evaluate the difference between control vs experimental condition at pretest and at follow-up test phases. The conditions were not found to be significantly different at the pretest phase ($F=1.21$ [$df=1.38$], $P > .25$). However, a signficant difference was observed at the follow-up phase ($F=280.99$ $df=1.38$, $P < .01$).

Discussion

The similarity of mean pretest scores for control and experimental groups across all schools, coupled with the tremendous difference in posttest and follow-up scores for the same groups demonstrate that the Disabilities Awareness Curriculum is a strong and effective means of teaching third graders about disabilities.

The significant difference over all tests and over all conditions across the three schools demonstrated dissimilar student populations found in the various schools. However, the non-significant schools by treatment effects demonstrated generalization across all schools.

It is interesting to notice that although the students at Village Oaks School had participated in a mainstreaming effort for 3 months prior to follow-up testing, the children in the control condition at that school did better, but not significantly better than did the students in the control condition at the non-mainstreamed school. This observation is similar to that made by Rapier, et al. (1972). It is suggested by that observation that an informational program such as the Disabilities Awareness Curriculum may be used to strengthen any positive changes in non-disabled children which may be desired as a result of interaction with disabled persons.

Students in the experimental groups of all three schools demonstrated a mean increase in test scores of 50% of the total points possible at the posttest phase, and maintained a mean increase of 41% at follow-up. Unlike studies involving integration only (Rapier, et al., 1972) which demonstrated small positive increases, an increase of the magnitude demonstrated by the present study should be of practical value to the integrated classroom. The results of the present study suggest that negative and often inaccurate perceptions of disabled children developed in early childhood (Silberberg, 1967) may be substantially changed to a more positive and accurate perception as a result of an informational program such as the Disabilities Awareness Curriculum.

Due to the nature of the pre/posttests used in measuring the accuracy of children's perceptions of disabled individuals, no statement may be made concerning the probable application of those perceptions in real-world situations. However, the children demonstrated an ability to learn and retain the information taught to them through the Disabilities Awareness Curriculum. For that reason, future research on the topic should include a measurement of positive and negative interactions between non-disabled and disabled youngsters in face-to-face encounters. Other areas of future research may include studies designed to identify the optimal age for such an informational program, or studies designed to investigate the feasibility of using the classroom teacher as the Disabilities Awareness instructor.

Footnotes

A complete copy of the Disabilities Awareness Curriculum may be obtained by writing to the Author at the following address:

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Table 1

Analysis of Variance:

32.2 Split Plot Factorial Design

Source	df	MS	F
School	2	87.18	7.58*
Treatment	1	2641.58	23.69*
School by treatment	2	1.28	
Subjects within groups	134	11.50	
Test	1	2492.29	609.36*
School by test	2	2.94	
Treatment by test	1	2261.95	554.54*
School by treatment by test	2	9.95	2.44
Test by subjects within groups	134	4.08	

* $p < .01$.

Table 2

Analysis of Variance:

22.3 Split Plot Factorial Design

Follow-uo Results

Source	df	MS	F
School	1	0	
Treatment	1	1794.13	144.80*
School by treatment	1	9.63	
Subjects	36	12.39	
Test	2	412.64	108.02*
School by test	2	9.70	2.54
Treatment by test	2	415.24	108.70*
School by treatment by test	2	1.64	
Test by subjects	72	3.82	

* $p < .01$.